The Region of Waterloo Strategic Plan (2015-2018) has identified the Biosolids Strategy as a key component of its Environment and Sustainable Growth programs, and notes the crucial importance of public engagement as part of developing these programs:

“The Region will work in partnership with the community and area municipalities to manage growth in environmentally sustainable ways and create spaces and places that enhance living, working and travelling experiences for the community.”
“We are all involved in creating biosolids, so we should all be involved in determining what we do with them as a community. The most suitable strategies take the whole community’s interests to heart and we need the public to help us identify the solutions that fit.”

- Kaoru Yajima
Water Services Project Manager at the Region of Waterloo
Table of Contents

1.0 Introduction................................. 1
2.0 A Primer on Biosolids Management in Waterloo Region.... 2
3.0 Why do we Need a Biosolids Strategy?.............................. 3
4.0 Roadmap to the Strategy............. 4
5.0 Engagement Approach.................... 5
6.0 Issues that Matter..................... 6
7.0 Project Timeline............................ 7
1.0 Introduction

The Region of Waterloo’s Biosolids Strategy: Planning for a Sustainable Solution

Biosolids are the processed organic material that remains after the treatment of our wastewater. We are all involved in creating biosolids, so as a community we should all be involved in determining what we do with them. The Region is embarking on a comprehensive process to develop a new Biosolids Strategy and we need everyone to be involved. The successful strategy will take the whole community’s interests to heart and we need the public and all key stakeholders to help us identify the most suitable solutions.

The Biosolids Strategy will take a critical look at today’s practices, consider all the available technologies and develop a sustainable way to manage biosolids within the Region to the year 2051.

Purpose of the Project Charter

The Project Charter will act as a guiding document for the project and a communications tool for the public, describing the need for a Biosolids Strategy and opportunities for biosolids management. This document will serve as a reference tool for project team members and the public throughout the process, describing the scope and intent of the project. The Project Charter also provides background information both on biosolids management in the Region, and on the Biosolids Strategy project.

This Strategy development roadmap demonstrates the focus on meaningful and open conversations with citizens and collaboration with community partners.
2.0 A Primer on Biosolids Management in Waterloo Region

When you finish doing your business, that’s when the Region of Waterloo gets busy doing its business. The diagram below describes how biosolids were managed in 2015 in the Region.

Over 180,000 m$^3$ of wastewater processed every day...

...equivalent to 72 Olympic-sized swimming pools!

535,000 Residents... and growing!

13 Wastewater Treatment Plants

Clean water is discharged to the river

Over 1,500 tonnes of liquid biosolids generated daily. This means a lot of processing, transport, and management throughout the year. This is equivalent to the weight of approximately 400 elephants every day!

Beneficial use refers to the application of biosolids for land-based uses to improve soil quality and enhance crop growth in varying ways from year-to-year. In 2015, Land Application in agricultural areas surrounding the Region of Waterloo comprised roughly 45% of the Region's total biosolid output. In 2015, the Region also began Land Reclamation, with roughly 15% of the total used in former mining tailing ponds (near Sudbury, Ontario).

The remainder of biosolids produced in the Region's treatment plants is safely disposed of in landfills outside the Region of Waterloo.

The management of biosolids in the Region varies from year to year; this diagram provides an overview of the approach in 2015.
3.0 Why do we Need a Biosolids Strategy?

As the Region plans for its future, having a strong Strategy for biosolids management will allow for important decisions to be made with community input. A few of the main reasons why a Strategy is essential are outlined here.

**Growth**

The region is expected to experience population growth equivalent to the size of the City of Kitchener in the years ahead. This means that there will be additional demand and pressures placed on the current approach.

**Environmental Constraints**

A number of environmental, social, and economic constraints will need to be considered, including land availability, range of applications, climate change, and transportation routes.

**Regulatory Changes**

Updates to regulations can place more restrictions on how we can use biosolids, or create opportunities for beneficial use.

**Increasing Costs**

The costs associated with trucking, storage and disposal of biosolids will continue to rise over time, and it is important to consider the best value to the Region in developing the Strategy.

**Security**

A more diversified Strategy would allow the Region the flexibility and adaptability to appropriately plan for contingencies and emergencies, manage risk, and tackle mid to long term biosolids storage needs.

**Innovation**

With new technologies and scientific advances, the Region should consider and present new, feasible approaches and opportunities.
4.0 Roadmap to the Strategy

The cornerstone of a good Strategy is a strong commitment to engagement and the planning process.

Project Scope

The project will follow the Municipal Class Environmental Assessment (EA) process for master plans, to develop a strategy that will focus on determining the most suitable biosolids management approach for the Region. The recommended Strategy will identify the need for any new facilities. The siting of any such facilities is not part of the current project scope, and would be the focus of a separate and future process to develop the implementation plan for the recommended Strategy.

Guiding Principles

The Project Team will aim to meet the intent of the following principles that will guide the Strategy development process:

- Emphasize public engagement and participation from the community;
- Identify a long term, flexible, secure, and sustainable Strategy for the Region; and
- Broadly consider all possible alternatives in developing the Strategy.

Project Organization

The Strategy will be developed by a Project Team, consisting of staff from the Region of Waterloo's Water Services division, along with an external consultant team. There are also three main Committees to support the Strategy with detailed roles:

- **Steering Committee**, to provide strategic direction, which is composed of Region of Waterloo technical planning and communications staff along with Regional Councillors;
- **Stakeholder Committee**, to provide advice and feedback on key aspects of the strategy, that holds diverse representation across sectors and community groups, as well as academic experts and industry representatives;
- **Project Technical Advisory Committee**, to provide technical and regulatory advice feedback on the strategy, which brings together technical and regulatory perspectives from municipal, Regional, and Provincial bodies involved in the management of biosolids.

The input from these three Committees will be combined with feedback received from the wider Region of Waterloo community.

The final strategy will be submitted to the Region of Waterloo Council, who will be responsible for final approval. An illustration of the Project organization is shown below.
5.0 Engagement Approach

Principles of Engagement

The Region of Waterloo is committed to engaging citizens and collaborating with community partners to foster meaningful and open conversation about Regional programs and services. The project has an emphasis on community input and participation at multiple points throughout the development of the Strategy, to help identify values important to the public. Throughout the Strategy development process, the Region will endeavour to provide a wide range of event types and opportunities for public engagement and involvement. The Guiding Principles for engagement are:

• Accountability
• Transparency
• Respect
• Inclusivity and Accessibility
• Responsiveness
• Clarity and Simplicity

Engagement Opportunities

Public and stakeholder engagement will be achieved through a variety of channels:

- Biosolids Bulletin Email Updates
- Project Website: [www.regionofwaterloo.ca/biosolids](http://www.regionofwaterloo.ca/biosolids)
- Public Consultation Events & Workshops
- Surveys (Online, In-person, and Telephone)
- Online and Multimedia Engagement Channels: Open Town Hall Tool, Videos, Webinar & Educational Materials
- [www.facebook.com/ROWWaterServices](http://www.facebook.com/ROWWaterServices)
- [@RegionWaterloo](https://twitter.com/RegionWaterloo)

Who do we Need to Engage?

A number of key stakeholder groups will be engaged in developing the Strategy, including:

• Community members
• Elected Officials
• Regulatory bodies
• Technical experts
• Academic advisors
• Aboriginal communities
• Advocacy groups
• Community-based organizations
• Business and industry experts
• Agricultural groups
• Health, environmental, and scientific experts
• Municipal staff
6.0 Issues that Matter

In developing the Strategy, there are a number of important factors that will be taken into account. The categories below represent the key issues that have been raised by community members in the early stages of the project.
7.0 Project Timeline

There are a number of key questions that we need public input on at each stage of the Biosolids Strategy development process.

**STAGE 1**
Problem definition, establish Project Charter, Master Plan Process, Vision and Objectives

**STAGE 2**

**STAGE 3**

**STAGE 4**
Identify and evaluate short list of biosolids management strategies

**STAGE 5**
What’s our plan?

**STAGE 6**
Recommend strategies and final Biosolids Master Plan

**WHAT ARE BIOSOLIDS?**
- Learn more about biosolids

**RECOMMENDED STRATEGY**
- Review and comment on the recommended Strategy

**EVALUATING THE SHORT LIST OF ALTERNATIVES**
- Provide feedback on the evaluation of short-listed strategies

**EVALUATING THE LONG LIST OF ALTERNATIVES**
- Discuss the long list of alternatives and the advantages and disadvantages of each

**PROBLEM & EVALUATION CRITERIA**
- Importing potential

**WHAT’S OUR PLAN?**
- Review and comment on the recommended Strategy

**WHAT ARE BIOSOLIDS?**
- Learn more about biosolids

**7.0 Project Timeline**
PROJECT CONTACT

KAORU YAJIMA, P.Eng.
Senior Project Engineer
Water Services – Region of Waterloo
150 Frederick Street, 7th Floor
Kitchener, ON  N2G 4J3
Tel: 519-575-4757 ext. 3349
Fax: 519-575-4452
TTY: 519-575-4608
Email: kyajima@regionofwaterloo.ca